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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CAILLOUET, CHRISTOPHER C

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/540,949	Applicant(s) RENNER ET AL.	
	Examiner CHRISTOPHER C. CAILLOUET	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-21 and 23-40 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 39 and 40 is/are allowed.
- 6) ☒ Claim(s) 17-20, 23, 24 and 27-38 is/are rejected.
- 7) ☒ Claim(s) 25 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Amendments filed on May 5, 2009 have been entered. Claims 17, 20, 24, 29-31, and 35 were amended. Claims 21-22 were cancelled and claims 39 and 40 were added.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

3. Claim 21 was cancelled. The 112 2nd paragraph rejection of claim 21 has been withdrawn.

Claim Rejections - 35 USC § 102

4. Applicant's arguments, see pages 6-8, filed May 5, 2009, with respect to the 102(b) rejections of claims 17-18, 20, 23-24, 27, and 30-32 have been fully considered and are persuasive. The 102(b) rejection of claims 17-18, 20, 23-24, 27, and 30-32 has been withdrawn.

Claim Rejections - 35 USC § 103

5. Claims 17-24, 27, and 30-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer et al. (US 20010010423) in view of Hagenow et al. (US 5632914).

As to claims 17-19, Bauer et al. (Bauer) discloses a process for preweakening the inside of an automotive trim piece (vehicle interior component) cover using a laser (Abstract). Bauer discloses that a laser partially removes material from a textile component to form a plurality of holes, thus defining a weakening zone in the material (Fig. 13; paragraphs 50 and 94).

Bauer fails to disclose that the spacing of the holes is 0.6 to 0.75 times the spacing between the threads of the textile surface. Hagenow et al. (Hagenow) discloses a method of making a decorative layer with a predetermined weakening line for an airbag deployment device (Abstract). Hagenow discloses that the spacing of the holes correlates to the reduced tensile strength of the substrate (column 6, lines 23-30). Therefore, it would have been obvious to one of ordinary skill in the art to space the holes in accordance with the desired tensile strength of substrate for proper airbag deployment. Depending on the choice of fabric and the thread count/spacing of said fabric during optimization of the spacing of said holes in the substrate, it's expected that the spacing of the holes would fall within the range of 0.6 to 0.75 times the spacing between the threads of the surfaces of some of the textiles, as claimed. *Discovery of optimum value of result effective variable in known process is ordinarily within skill of art. In re Boesch*, CCPA 1980, 617 F.2d 272, 205 USPQ215.

As to claim 19, the method of claim 17 is taught as seen above. Bauer fails to disclose that the holes made by the laser run entirely through the decorative layer (fabric) wherein the entry opening is smaller than the exit opening. Hagenow teaches that his method allows for a tear seam to be made wherein the microholes formed

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through the decorative layer are not visible to the human eye (column 3, lines 11-18).

Hagenow further discloses that the holes are made in the decorative layer by a laser, such that the holes at the entry opening are larger than that of the exit opening (Column 6, lines 7-18).

Insofar as Bauer and Hagenow are analogous arts from the same field of endeavor of airbag component production, it would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the hole forming method as taught by Bauer to include the hole forming method of Hagenow wherein the laser cuts entirely through the decorative layer. This would have been an obvious improvement to one of ordinary skill in the art at the time of the invention because one of ordinary skill would recognize the advantage of weakening the decorative layer further, as is inherent when perforations are made entirely through a substrate, without said perforations being visible to the human eye.

As to claim 20, Bauer further discloses that the textile may be a fabric (Paragraph 50).

As to claim 23, Bauer further discloses that the perforations are disposed in a linear arrangement (Figure 7).

As to claim 24, Bauer discloses that the holes are introduced at an angle, 90°, with respect to the surface of the textile surface structure (Figure 13).

As to claim 27, Bauer discloses a process for preweakening a section of a vehicle interior component.

As to claims 30 and 31, Bauer discloses a method of producing a vehicle component wherein a laser introduces holes into the foam layer (Fig. 9 and 10; paragraph 90) and the fabric layer (Fig. 13; paragraphs 50 and 94). Since the component is laser treated from the back side, it is inherent that the holes in the foam layer are formed before the holes in the fabric layer of the component. Spacing the holes in the substrate to be 0.6 to 0.75 times the spacing of the threads would have been obvious to one of ordinary skill for the same reasons stated in the rejection of claim 17 above.

As to claim 32, the method of claim 30 is taught as seen above. Bauer further discloses bonding a supporting element (108, 116) to the foam and textile layers (Fig. 10, 16; paragraphs 90-91 and 99-102).

As to claims 33-38, the method of claim 32 is taught as seen above. Bauer fails to disclose weakening the substrate/supporting element (116) before attaching it to the foam layer (120) (Fig. 16; paragraphs 99-102). Bauer does disclose that the cover piece (textile material) may be preweakened before attaching it to the substrate or after attaching it to the substrate. Bauer discloses a method wherein the multiple layers of material are bonded together, and then the weakening zones are made into the composite in a single step by a laser. It is the position of the examiner that using multiple steps for forming holes in substrates wherein said holes will align in the finished product would have been obvious to one of ordinary skill in the art at the time of the invention because one of ordinary skill would recognize that the method as taught by

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Bauer is a simple variant wherein one laser ablation step is used to cut holes through the material that align with each other.

6. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al. (US 6254122) in view of Bauer et al. (US 20010010423).

Wu et al. (Wu) discloses a reinforced trim cover for a vehicle seat assembly wherein a tear line is formed for deployment of an airbag (Abstract; Fig. 2 & 4). Wu discloses that tear lines are made in the trim cover but fails to disclose whether laser ablation may be used to make the tear lines. Bauer et al. (Bauer) discloses a process for preweakening the inside of an automotive trim piece (vehicle interior component) cover using a laser (Abstract). Bauer discloses that a laser partially removes material from a textile component to form a plurality of holes, thus defining a weakening zone in the material (Fig. 13; paragraphs 50 and 94). Bauer teaches that laser scoring the tear line into the component results in elimination of any exteriorly visible lines, even where minimum material remains above the scoring groove (paragraph 63). Insofar as Wu and Bauer are analogous arts from the same field of endeavor of airbag components and their production, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilize the tear line formation technique of Bauer to produce the seat assembly trim cover of Wu because one of ordinary skill would have recognized the advantage of a trim component with hidden airbag tear lines.

7. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US 20020047252) in view of Bauer et al. (US 20010010423).

Kim discloses jacket with deployable airbags for safety in an auto collision (Abstract; Figure 7). Kim discloses that upon detection of a collision, the jacket will deploy airbags from within the jacket (paragraph 14; Fig. 6). Kim further discloses that the jacket may be made of leather, vinyl, or other fabrics such that the jacket is functional and comfortable (paragraph 36). Kim fails to disclose whether laser ablation may be used to make the tear lines for the airbag deployment from the jacket. Bauer et al. (Bauer) discloses a process for preweakening the inside of an automotive trim piece (vehicle interior component) cover using a laser (Abstract). Bauer discloses that a laser partially removes material from a textile component to form a plurality of holes, thus defining a weakening zone in the material (Fig. 13; paragraphs 50 and 94). Bauer teaches that laser scoring the tear line into the component results in elimination of any exteriorly visible lines, even where minimum material remains above the scoring groove (paragraph 63). Insofar as Kim and Bauer are analogous arts from the same field of endeavor of airbag components and their production, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilize the tear line formation technique of Bauer to produce the seat assembly trim cover of Kim because one of ordinary skill would have recognized the advantage of a jacket component with hidden airbag tear lines.

Allowable Subject Matter

8. Claims 25 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
9. Claims 39 and 40 are allowed.

Response to Arguments

10. Applicant's arguments filed May 5, 2009 have been fully considered but they are not persuasive.

Applicant's arguments on pages 6-11 can be summarized as follows: Applicant argues that none of the references disclose that the spacing of the holes is 0.6 to 0.75 times the spacing between the threads of the textile surface. As stated in the rejection above, Hagenow discloses that the spacing of the holes correlates to the reduced tensile strength of the substrate. One of ordinary skill will space the holes according to the tensile strength required for the panel to tear cleanly and deploy the airbag. Once the optimized spacing of holes in the substrate is derived, the choice of fabric will determine whether the spacing of the holes is 0.6 to 0.75 times the spacing between the threads of the textile surface.

Applicant's arguments on page 9 in regard to the "adjustment of the amount of proprietary feedstock" having no relevance to the current application is correct. The

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inclusion of this statement was an error on part of the Examiner and has been corrected to show the application of result effective variables in the rejection of claim 17.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER C. CAILLOUET whose telephone number is (571)270-3968. The examiner can normally be reached on Monday - Thursday; 9:30am-4:00pm, EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Phillip Tucker can be reached on (571) 272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher C Caillouet/
Examiner, Art Unit 1791

/Mark A Osele/
Primary Examiner, Art Unit 1791
July 20, 2009